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ON THE DEVELOPMENT AND STRUCTURE OF THE TEETH.

[Concluded from page 96.]

II. **THE DEVELOPMENT OF THE TEETH.**—The researches in this branch of odontology which have lately been published, and to the examination of which we shall at present confine ourselves, have an interest not much inferior to those of which we have already spoken. Much, however, in this department remains to be done; and observers have as yet to test the accuracy of the novel views which we are about to relate.

We shall speak—1st, of the Development of the Ivory of the Tooth; 2dly, of the Enamel; 3dly, of the Crusta Petrosa.

The Development of the Ivory of the Tooth.—The ivory of bone is formed by an organ called the pulp of the tooth. This pulp is, at an early stage of development, contained in a cavity called the follicle, from the base of which it grows, and to which it is attached by vessels and nerves. According to Arnold and Goodsir, this follicle is thus produced: at a very early period of development (between the fifth and seventh weeks) in the human subject, a groove is observed on the free margin of the alveolar arch; from the floor of this groove the pulps of the teeth grow; after a certain period, septa are formed, which separate the pulps from each other, and divide the groove into a series of follicles, which continue to have a communication with the mucous membrane of the mouth, until a much later period. Arnold has seen the orifices of these follicles quite distinct in a child at birth. The researches of Mr. Goodsir have been conducted on a very extensive scale, and he has published delineations of the development of the follicle in all its stages; at the time that he conducted his dissections, he was not aware of the views of Arnold, which appeared in the Salzburg Med. Zeitung for 1831. Purkinje and Raschkow are quite opposed to the above view of the development of the follicle, as described by Arnold and Goodsir. They state that they "have looked with the greatest care, and have made researches in comparative anatomy, but have never discovered a trace either of the groove or of the orifice of the follicle." Raschkow states that "the membrane of the follicle consists of soft fibres mixed with much granular matter; at the earlier periods of development, this follicle is not united with the gum; its internal surface is smooth like a serous membrane."

The Pulp or Dental Germ.—The pulp is developed in the interior of the above-mentioned follicle, which, when the latter assumes the name of *capsule*, Raschkow considers "the pulp to be a production of the interior of the capsule, inasmuch as the two are inseparably connected, their vessels and nerves having a common origin." He denies that the dental germ is a continuation of the dental nerve. The following is a condensed account of the views of Raschkow on the pulp and its functions. This organ, at its earliest period, consists of globular granulations, in which are not observed either vessels or nerves; afterwards the vessels appear and then the nerves. The granules of nervous matter, in the interior of the pulp, assume the form of nervous cords, after the vessels are completely formed. In no part of the body are the extremities of the nerves so well seen as in the pulp, when it is mature. The nerve upon entering the pulp divides into filaments, the latter into a pencil of rays, in which they terminate. These filaments are accompanied by a cellular web. In the interior of the pulp of the hare, sow and stag, stony concretions may be observed towards the apex. A membrane covers the dental pulp from its base to its apex; in this membrane the formation of the dental substance always commences. This membrane Raschkow calls "membrana præformativa," and it is described by him as being very dense. Raschkow has observed upon the surface of this membrane, previously to the formation of the dental substance, certain elevated spots. These he considers to be most probably transformed into the undulating ridges on the surface of the dental substance, to which the enamel is attached. According to Raschkow and Purkinje, the dental substance is formed immediately under the preformative membrane, the latter assuming an almost stony hardness; between the dental germ and this ossified membrane, a layer of dental fibres is deposited from without inwards, the parenchyma of the dental germ supplying the materials. It will be seen that the views of the above observers differ much from those of preceding writers. Hitherto it has been supposed that the membrane covering the surface of the pulp, and intimately adhering to it, is the secreting organ of the ivory. Observers have accounted for the peculiar waving course of the tubes in ivory, by supposing that the pulp undergoes certain periodic movements.

Development of the Enamel.—We have seen that the first stage in the development of the tooth consists in the formation of a follicle or capsule, from the base of which grows an organ—the pulp, the function of which is to secrete the ivory of the tooth. Contemporaneously with the appearance of the pulp is the formation of another structure, a growth from the internal layer of the capsule; it is the formative organ of the enamel. It appears directly opposite to the ivory pulp, was called by Hunter the "enamel pulp," and by Purkinje and Raschkow the "adamantine organ." The researches of the two last-mentioned authors are highly interesting. They state that the "adamantine organ appears as a globular nucleus, having a granular structure, projecting into the cavity of the capsule towards the pulp of the ivory;" and that it eventually is converted into the membrane which secretes the enamel in the following manner: "It throws off towards its internal surface a stratum of fibres, producing the appearance of a silky covering. These fibres are eventually converted into a membrane—the membrane of the enamel. It has no traces of vessels or nerves. If examined with the microscope it will be found to consist of hexagonal bodies of almost equal size. Each of these fibres must be considered as a *gland*, whose function is to secrete a single enamel fibre, corresponding with itself. Each *gland*, simultaneously with the earliest formation of the dental substance, deposits the primitive part of each adamantine or enamel fibre, one upon another, so that every one of these fibres, when carefully examined by the microscope, displays the order of its parts arranged in strata in a transverse direction." The enamel is first deposited upon the hardened preformative membrane mentioned above, and the progress of its formation corresponds exactly to that of the development of the ivory. At an early stage of the production of these enamel fibres, the organic substance is a lymph which enters between each individual fibre, and appears to soften its entire substance; this organic substance appears to be formed by the parenchyma of the adamantine membrane between the above-named *glands*." Purkinje and Raschkow suppose that this animal substance, by means of a chemico-organic process, enters into close connection with the earthy matter, and thus forms the animal basis of the enamel, which is evident, by means of the microscope, after the latter has been placed in acid. These observers account for the production of the peculiar waving fibres of the enamel by the occurrence of certain movements in the adamantine membrane. The adamantine membrane is permanent in the incisors of the rodentia. Previous to the formation of the adamantine organ, it is supposed that the rudiments of this structure exist in the form of a serous sac.

Development of the Crusta Petrosa and Cementum.—Upon this branch of the subject much remains to be done. No new facts have been adduced since the time of Cuvier. The crusta petrosa and cementum are formed subsequently to the completion of the ivory and enamel; but whether the organ which produces them is a modification of those which formed the latter, or one for their especial development, anatomists have not yet determined.

The result of the investigations above detailed is that the structure of the tooth is very analogous to that of bone. We shall refrain from making any observations upon this analogy until we have laid before our readers a view of the recent discoveries upon the structure of the latter tissue (and which we hope to do in an early number). Although we possess so full an account of the internal composition of the teeth, we are very deficient in researches into the development of each individual part of the tooth, as well as of the organ generally; we have noticed above that Purkinje and Raschkow entertain opinions directly opposite to those of Arnold and Goodsir; in fact, we believe, that upon no subject is there a greater diversity of opinion than upon the nature and functions of the structures in connection with the development, growth and organization of the dental apparatus. In support of this assertion, we refer to the first part of the work by Mr. Nasmyth. The cause of the strange discrepancies of opinion therein detailed, appears to arise from the too partial examination of the subject before us, which has been conducted by various observers.

Mr. Nasmyth promises to prosecute an extended series of researches into every branch of odontology; in doing so we feel sure that he will reconcile many of the present conflicting opinions, and we hope to receive from his hands, what is much wanted in medical literature, a Systematic Treatise on the Development, Structure, and Diseases of the Teeth.

To conclude: to those who wish to pursue the subject which we have so briefly brought under notice, we recommend the first part of the work of Mr. Nasmyth, as containing an entire translation of the papers of Retzius, which are illustrated by many beautiful and original plates; also a complete view of the researches of those whose names we have introduced in the present article; and, lastly, a comprehensive historical survey of all works on odontology.—*Brit. and Foreign Med. Review.*

REMARKS ON THE PERCEPTION OF FORM.

(Concluded from page 125.)

Form results from the limitation of the extension of bodies, and it may be proved by admeasurement that the particular form of any body is determined by the relative distance and direction of the points of its surface from its centre, or from any other of its points, always measuring from the same point. In regular forms, as a perfect sphere, it is easy to prove this. The form of a crystal depends on the distance and direction of the particles of its surface from the primitive nucleus of formation.

It is my present object to show that the *apparent* form of a body depends on the relative distance and direction of the points of its visible surface from the point of observation, when we see it *correctly*, and that when we are deceived with regard either to the relative distance or the relative direction of its points, its form appears different from what it really is. If this can be shown, it will necessarily follow that the perception of form is compound, and that it cannot, in accordance with the received principles of phrenology, be attributed to a single faculty; for it is one of its fundamental principles that every perception essentially distinct in its nature, depends on a distinct power of the mind.

In investigations like the present, it must be constantly borne in mind that the impulses by which bodies at a distance make impressions on our organs of sight, come from them in the form of rays; thus when we look at an object, rays of light of different lengths, and coming from different directions, strike the retina, and the impressions they there make being propagated to the brain, excite the perception of the distance and direction of the points from which they come. When we touch any object, the impressions it makes on us are conveyed by a very circuitous route along the nerves to the brain, where their character is perceived by the different mental faculties; but our perceptions are the same as if they came to the brain in right lines, and it is only by observation and reflection that we discover how circuitous their real route is. Our perceptive faculties are so constituted that they take no direct cognizance of the refraction of the rays of light, or of sound, or of that of the impulses of touch; our perceptions are what they would be if the impulses came in a direct line from the points from which they appear to come.

I draw a line four inches in length, which *appears* straight, and which can be proved mathematically to be straight; I place a point which I call the point of observation three inches from it, and equidistant from both of its extremities, and I find that if I vary *perceptibly* the distance and direction of any of its middle points from the point of observation, while the others remain the same, the line ceases to appear straight, and that in reality it ceases to be straight. If I wish to vary the position of its extreme points, or to add new points to its extremities, and still preserve the straightness of the line, I find that I am obliged to place them in a certain direction and at a certain distance from the point of observation. A straight line may be proved in the following manner. "A straight line is that line the distance of each of whose points from the point of observation is proportionate to the secant of the direction of this point. Understanding by the direction of this point the angle P A B, which the line A P drawn to it makes with the perpendicular A B." Draw a line from the point of observation to the middle of the straight line, and another to one of its extremities. Place A at the point of observation, B at the middle of the straight line, and P at the extremity to which the other line is drawn.

When I look at a plane surface two inches square, placing its central point immediately opposite, and each of its angles equally distant from, the centre of the cornea, I perceive that its points become more and more distant from the centre of the cornea, in proportion to their distance from the centre of the square, and that though there are complete circles of points, all equally distant from the centre of the cornea, each point is in a different line of direction. If I vary *perceptibly* the distance of a single point, while the others remain the same, the surface ceases to *appear* plane and to *be* plane. If I substitute for the plane surface a sphere two inches in diameter, I perceive that the distance of its points from the centre of the cornea increases much more rapidly as they recede from the centre of the spherical surface than they did in the plane surface. When I substitute for the sphere a regular cone whose base is two inches in diameter, I perceive that the lines of direction of the points of its surface increase in length from the point of observation much more rapidly as they recede from the vertex, than they would if the surface were spherical. If I vary *perceptibly* the distance or direction of a single point, while the others remain the same, the form *appears* altered, and that it is *really* altered may be proved by admeasurement. It is evident, then, that when a person knows the relative distance and direction of all the points of the visible surface of a body from any given point, he has a perfect knowledge of its visible form. It is undeniable that we do get our knowledge of the visible properties of bodies by means of impulses coming in the form of rays from every point of their visible surface, and it is also undeniable that the apparent form of a body depends on the apparent relative distance and direction of the points of its visible surface from the point of observation; for it has been, and can again be, proved by innumerable experiments, that when we are deceived with regard either to the relative distance or relative direction of the points of a surface, its form appears different from what it is. When we can succeed in getting two distinct images of an object which appear to come from entirely different distances and directions, the object appears double. This may be done by pushing a little aside one of the eyes when they are both directed towards the same object; the images are then formed on non-corresponding parts of the retina, and in consequence appear to come from entirely different distances and directions, but the form of the images is the same, because the relative distance and direction of their parts are the same in both. When we place a straight rod in a vessel, and cover a part of it with water, it appears bent, and the reason is that the relative distance and direction of the points of its surface appear changed on account of the refraction of the rays of light coming from the part under the water, and we can never by any effort learn to *see* the rod straight, while it and the eye remain in the position referred to.

When we look between two long parallel rows of trees or buildings, they appear gradually to approach each other at their further extremities. This deception results from the limited nature of our faculties, and from the laws of light. We cannot estimate by sight a great distance so accurately as we can a short one; other things being the same, we receive fewer rays of light from a distant object than we do from a near one, and in consequence of the diminution of the vividness of the impressions, we cannot perceive so accurately their character. The points of the lines appear nearer than they are, but they still appear in their true lines of direction, when the rays are not refracted before they reach the eye. The deception with regard to their distance increases so gradually and so regularly, that the apparent lines have all the characters of a right line, and of course do not appear bent; in other words, the lines appear to have exactly that inclination towards the eye which they would require to have to constitute them right lines, were they situated as they appear to be. We are deceived as to the real distance of the points of each line, but not as to their relative distance, from the point of observation.

When we are deceived with regard to the form of a body by shading, we are always deceived with regard to the relative distance or direction of its points, from the point of observation, commonly both. The reader may satisfy himself of this by examining prints or paintings. The labor of the artist being laid out on a flat surface, he is obliged to throw depth into breadth or height, and he who succeeds in representing the most naturally depth by breadth or height, is the best artist, as far as concerns perspective.

As (other things being the same) a body always appears smaller the further it is removed from the eye, it seems that size and distance are essentially the same perception—if so, they must depend on the same faculty. Length is distance from one end to the other; breadth, width, thickness, distance from one side to the other; depth, distance from the top to the bottom; height, distance from the bottom to the top; these words therefore include the idea of direction. Distance is perceived by the faculty called size, and direction by that called locality.

The reader will perceive by the following extract from the last edition of Mr. Combe's "System of Phrenology," that my opinion with regard to the perception of form is not altogether without phrenological support. "In the last edition, I mentioned the case of a lady who having Form large and Size deficient, copied figures accurately in regard to form, but inaccurately in regard to size. To which statement Mr. Jeffrey objected that size is necessary to proportion, and proportion to form, and that there was inconsistency in the account of the lady's talents. Mr. Jeffrey is right: she informs me that it is only the simplest forms, which have few parts, that she is able to copy correctly, and in drawing even them she will err in size; but that when a figure has detached parts, although she may give the outline of each part by itself with considerable accuracy, it will be larger or smaller than the original; whence the whole figure will be deficient in proportion. In drawing from nature, she failed in perspective; nevertheless she feels great pleasure in observing forms, recollects them easily, has a complete mental consciousness of the powers of Form and Size being different, and of the one being strong and the other weak in her mind." It seems to me that this case furnishes very strong evidence in favor of the opinion that the perception of form does not depend on a single faculty. It was to be expected that the lady would err less in drawing a small part of a complex figure than in drawing the whole of it, and it is evident that she did not recollect forms *accurately*.

When phrenologists assert, that other things being the same, the person whose eyes are the furthest apart has the most accurate and distinct perception, and consequently the best recollection of forms, they assert no more than can be proved to be correct; but when they go on to say that the perception of form depends on a single cerebral organ, which, when large, produces breadth between the eyes, I think they assert more than can be proved. There are certain physical reasons why a person whose eyes are far apart perceives the form of objects more accurately and with less trouble than a person whose eyes are near together, supposing every other thing to be the same. It is an easily demonstrable fact that those persons who have the eyes far apart, are able to get a more extensive, and consequently a more accurate, view of many irregular bodies, at a single glance, and without moving the head, than those persons whose eyes are near together. It is easy to place a body in such a manner that a man whose eyes are far apart shall see three faces of it, while another, whose eyes are near together, shall see only one face, when both are standing in the same position. It is evident, then, that the two men would have very different ideas of its form. Persons whose eyes are near together may see distinctly what is in view, but their range of vision is less extensive, and their ideas of the form of many irregular bodies cannot be so accurate, as they would be were their eyes far apart; on the same principle that a man who is near sighted and can see only the lower part of a building, has a very different idea of it than he would have if he could see it all. From the constitution of the material world, a man who has but one eye sees much less than he would if he had two. The portraits of a painter whose eyes are near together are apt to appear flat and dead; they want relief and depth; he sees less of the face and head at a single view when in certain positions, than he would if his eyes were far apart, and he is naturally inclined to represent as much as he sees at once, or but little more. Were he aware of the disadvantage under which he labors, he would find it difficult to overcome it by superior attention, and at the same time make his portraits appear natural. He would be apt to destroy their unity. Gilbert Stuart's portraits are remarkable for their depth and relief; they appear to stand out from the canvass; you imagine you can see the entire form of the person represented. Though I do not know it to have been the case, I have no doubt that Stuart's eyes were uncommonly far apart.

The organ of Size, when large, evidently increases the distance between the eyes, particularly when Individuality is also large and sinks low between them. When Individuality is small, Size may be large without pushing the eyes apart, for in such cases it is generally placed higher than when Individuality is large. There may be considerable breadth between the eyes when Individuality is large and Size deficient. Let the phrenologist look at the portraits of Sterne, Captain Cook, Reubens, Lord Bacon, given in Dr. Spurzheim's work on phrenology, and he will be convinced that if the portraits are correct, the organ of Size has much influence on the position of the eye-balls. From an examination of skulls externally and internally, and of the living head, I am convinced that the distance at which the eyes are placed from one another depends very much on the position and development of the organs of Size and Individuality.

Boston, Sept., 1839. ANDREW ALEXANDER, M.D.

SMALLPOX IN MAINE.

BY A CORRESPONDENT.

DEAR SIR,—I have recently visited, by request of their physicians and municipal authorities, the towns of Boothbay and Edgecomb, to examine several cases of smallpox, which were found to be of the *distinct variety*. It was introduced into Boothbay by a seaman landed there, who came directly from some infected region, and he passed through the different stages of the disease without exciting even a suspicion of its character; it having passed among the inhabitants for chickenpox. The case was a very mild one—pustules distinct and few in number, and the fever slight. In the immediate neighborhood of this case there have been several of patients who have recovered (one with the loss of an eye), and there were yesterday, under the care of Dr. Cushman (a quondam pupil of mine) 20 cases in which the eruption had appeared, and others coming on; and I regret to add that the malignity of the disease increases with the number of cases. Some of these cases were very severe. High fever during the suppurative stage—great tumefaction of the face—much cerebral excitement, delirium, &c.

This vicinity is an island, in the south part of Boothbay, and has been visited by hundreds for the benefit of sea air, and for fish, from the interior counties of our State, who I fear may have carried the infection with them into the most valuable agricultural sections of Maine.

The case in Edgecomb came from the same source, and yesterday, on my return home, I found one in this village. The subject of it, unconscious of the nature of his disease, although in the eruptive stage (a very mild case), was beside the street, when all the military and spectators of a regimental review were passing. A number of the inhabitants of this, and neighboring villages, have been in actual contact with him. The eruption has also appeared in Alna, about ten miles from this, on a man who had been to Boothbay.

At Boothbay I was informed that not one out of 20 of the inhabitants had been vaccinated, and their population is about 2700. From this statement you may judge of the prospect of the diffusion of this disease through a part of our State. Many think it will reach Madawasca; and if it do, the Blue-noses of the disputed territory may think of the lines of McFingal:

> "To rid the land of every TRAITOR,
> They'll send the *Small-pox* and the *greater*."

Wiscasset, Sept. 18, 1839.

Since writing the foregoing, I learn there have been 5 deaths out of the 20 cases at Boothbay. In one case of *varioloid* that fell under my care, the patient had been vaccinated from an arm that had received the virus 11 days previous. This man had been equally exposed to the contagion with an *un*vaccinated companion, who presented one of the most severe cases, and narrowly escaped death; while the varioloid patient (who had marked and severe premonitory symptoms of the eruptive stage), was not confined to the house by the disease one hour after the eruption appeared. I do not name this case as unusual to those who have been familiar with variola, but merely note it as an additional proof of the astonishing prophylactic influence of vaccination.

The remark of Cazenave or some writer that "*confluent* and *distinct* pustules are sometimes seen on the same patient," was verified in some of these cases.

Sept. 29, 1839.

REVACCINATION IN THE PRUSSIAN ARMY.

THE following Report, by Dr. Lohmeyer, exhibits the result of revaccination in the Prussian Army in the year 1838. It was drawn up from official documents, and published in the "Medicinishe Zeitung" for May last.

"Total number of individuals inoculated (revaccinated) 42,041, of which number there were cicatrices from former vaccination—

distinct, in - - - - - -	33,819
indistinct, in - - - - - -	5,645
none, in - - - - - - - -	2,577

The resulting vaccination was

regular, in	19,117
irregular, in	8,072
did not take, in	14,252

In the cases of failure the vaccination was repeated

with effect, in	2,306
without effect, in	10,424

Of the individuals in whom the disease was perfectly regular, there were from

1 to 5 pustules in	8,787
6 to 10 "	5,581
11 to 20 "	4,056
21 to 30 "	693

Of individuals revaccinated with effect in the present and former years, there were affected during 1838

with varicella	19
with varioloid	10
with true smallpox	2

It appears, from the preceding statement, that the results of revaccination in the army, during the year 1838, closely resemble those observed in 1837, in both years about 45 in the 100 exhibiting true vesicles running a regular course. The resemblance would have been still greater, but for the circumstance that many men were included who, according to their own account, had been previously revaccinated at their own homes, but who exhibited no marks on their arms; these were almost always among the failures. According to the reports of the medical officers, there were also many cases in which the development and course of the disease were disturbed, chiefly through carelessness on the part of the individuals in allowing the pustules to be broken or otherwise injured.

The opinion formerly pretty prevalent that, failing lymph immediately from the cow, the only proper matter for vaccination is that taken from children with good pocks, has now few supporters among the military surgeons, as they have ascertained by manifold experience that the lymph from well-formed pocks of adults, whether in the first or second vaccination, produces as fine and regularly-proceeding vesicles as that from children. Accordingly, it is the practice of most of the medical officers, only in the commencement of the revaccination to use lymph from children. Many even, like the Wurtemburg vaccinators, give the preference to the latter for communicating the disease to adults.

Inoculation with dry, preserved lymph, was in a great degree ineffectual. In a child vaccinated with lymph of this kind, there appearing no result, it was again vaccinated, eight days later, with fresh lymph from the arm, after which not only all the latter punctures, but also two of the former, took, and exhibited good and regularly-proceeding pocks. In the case of a man of the 6th artillery brigade, the pocks did not appear until six weeks after the inoculation (two on the right and three on the left arm), and their development was accompanied by so much inflammation in the vicinity, and gave rise to so much fever, that it became necessary to remove the patient into the hospital.

In several individuals natural smallpox appeared soon after the vaccination. In two cases this happened before the third day, and in these the vaccination had no result. In two other cases, on the contrary, the modified smallpox (varioloid) appeared when the vaccine vesicles were in perfection, and then they sustained no alteration in their progress.

The whole number of smallpox cases in the army in 1838, was 111; 56 being characterized as varicella, 43 as varioloid, and 12 as true variola; in this number are included the 31 cases formerly mentioned as occurring after successful revaccination. Seven cases of the smallpox were fatal, but no fatal cases occurred among the 31 just mentioned; in all of whom, on the contrary, the disease was mild, and indeed quite insignificant. The greater number of cases of smallpox (as was also the case in former years) took place in recruits shortly after joining the army, and before revaccination could be employed. Some of the older soldiers, however, were also attacked with the disease in some of its forms; for instance, some of the subordinate officers who had been previously revaccinated without effect, or who had entered the army previously to the introduction of the practice of revaccination. Most of the cases of natural smallpox occurred in the 7th division, viz., 37, and for the most part in the garrison of Minden. In the 4th division not a man failed with smallpox, although the troops mixed more or less with the inhabitants of their stations or of the vicinity. This favorable result is principally to be attributed to this circumstance—that in the district of the 4th division the recruits joining the army in the autumn of 1837 were, for the most part, subjected to revaccination immediately on their arrival; whereas, in other cases, it has been customary to put off the revaccination of such recruits, at least in a considerable proportion, until the spring."

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HALL'S PRACTICE OF MEDICINE.*

Marshall Hall, M.D., a lecturer on the theory and practice of medicine, whose reputation is as extensive almost as the circuit of the English language, is the author of a treatise on the Theory and Practice of Medicine, which is a production of acknowledged merit. Drs. Bigelow and Holmes, of Boston, have revised and enlarged it, with commendable care, and it gives us pleasure to accord to them the meed of praise for their labor. It strikes us, after a patient examination, that no practitioner who has once had this book in his possession would know how to dispense with it. There is a conciseness of description that has rarely been equalled by any other author; and in addition to the advantages arising from the convenience of having an orderly arrangement of diseases, their histories, symptoms and treatment, in the fewest words, those who have pupils will find that the manner in which the American editors have discharged their duties, lays them under manifest obligations.

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* Principles of the Practice of Medicine, by Marshall Hall, M.D., &c. &c. First American edition, revised and enlarged, by Jacob Bigelow, M.D., Professor in Harvard University, &c. and Oliver Wendell Holmes, M.D., Professor in Dartmouth College. Boston: Little & Brown. 8vo., pp. 720.

Part First contains the theory of medicine, divided into chapters. The first is on *medical observation;* the second treats of the *signs or symptoms of disease;* the third, the *causes of disease;* and the fourth is on the *treatment of disease.* Under these appropriate divisions, we have the signs of disease derived from external appearance, and signs derived from the respiratory system. Next percussion, auscultation, voice, succussion, cough, expectoration, &c. Signs derived from the circulating system, the nervous, the digestive, the urinary, generative, and the signs derivable from the effects of remedies.

The editors, or in fact, authors, appear to have wholly prepared the first part—a most excellent and indispensable addition to the original text. Throughout the entire volume, the additions they have made are readily recognized, and form an essential feature in the construction of the American edition.

It may be a novelty to some to have engraved illustrations in a book professedly written on the theory and practice of medicine. The design, however, will meet the approval of all. By an attentive examination of these xylographic pictures, generously interspersed, the young physician, whose opportunities for the study of morbid appearances have been limited, may be able to designate them.

The last chapter, devoted to the consideration of *entozoa*, in which the various kinds of worms investing the cavities and passages of the living body, are most accurately drawn on wood, accompanied by an interesting dissertation, also furnished by the editors, is particularly valuable.

Without doing full justice to the claims of these gentlemen, it would have been unpardonable to have said less. To students of medicine, especially, we recommend this edition, as being superior to any other work extant for them. Without being tedious in detail, or overburdened with descriptions and unnecessary repetitions, or distorted with theories, it presents a rational guide in the cure of diseases, the great object we all have in view.

Medical and Topographical Observations upon the Mediterranean.—An uncommonly interesting book is presented to those who have any disposition to know the things medical in Portugal, Spain, and other countries, by G. R. B. Horner, M.D., surgeon of the U. S. Naval Asylum, which will doubtless be read, also, with marked satisfaction by all who have a taste for travels. We are now in the process of reading it, and in referring to the work hereafter, shall make such extracts as will convince those who have not procured Dr. Horner's Observations, that there is much intellectual pleasure in store for them. Messrs. Haswell, Barrington & Haswell, publishers, of Philadelphia, will please accept our thanks for a copy.

Meeting of the Medical Council.—Agreeably to the requirements of the statute, a quarterly meeting of the Counsellors of the Massachusetts Medical Society was held at the Athenæum, on Wednesday last, October 2d. An elaborate report of the doings of the delegation which met at Worcester on the 10th of July, was ordered to be printed and circulated immediately among the fellows. No delegates were appointed to attend the National Medical Convention at Philadelphia, as many other societies have done. The subject was deferred to the next session of the Council in February, when it will be too late, and Massachusetts will not, therefore, be represented, unless there is a special meeting called. Some minor matters were discussed, and reports made, not, however, particularly interesting to the general reader. The names of those who have lately become fellows would be published were we in possession of the catalogue.

Dwarfs and Giants.—Notwithstanding the commonness of exhibitions in which the freaks of nature, as they are popularly called, constitute the essential attraction, it comes within our province to notice several persons who are now to be seen at Concert Hall, in this city—as the facts in relation to them may be useful to the philosopher or the physiologist. Without attempting to assign a reason for their being either uncommonly short or tall, the whole field is left for the speculation and conjectures of those who are fond of exercising their ingenuity to decypher the physical mysteries of our existence.

First, there are two miniature men, brothers, the one 43 and the other 34 years of age, well proportioned, intelligent, and agreeable in their manners and conversation, weighing only about 45 pounds each. Both have the care-worn expression of approaching age—in reality they are old men. Their parents were of ordinary height and proportions. Three, of several children, were dwarfs; but all the others were well developed. They are natives of Chester, Mass., where they have always resided till they were persuaded to offer themselves for exhibition. The oldest has six children, not one of them inheriting the miniature fabric of the father.

Secondly, Miss Jones, a highly-gifted young lady, a native of Connecticut, 22 years of age, whose weight is 73 pounds, and whose height is only 43 inches, presents the appearance of a full-grown woman whose limbs have been amputated just below the pelvis. Nothing is wanting in her case but length of the lower extremities, which are scarcely longer than those of an infant. To sustain the weight of the body, the muscles are necessarily enlarged in bulk. Her arms appear a little shorter, perhaps, than exact symmetry requires. No cause has been assigned for this singular condition of a part of her body. No accident ever occurred that could have had a controlling influence over the growth of her limbs. Her parents, as well as her brothers and sisters, are no way singular in their persons.

Thirdly, by way of studied contrast, is Mr. O'Clancy, known familiarly as the Irish giant, who is *seven feet and two inches* tall. He is 29 years old—in good health, and, taken all in all, a fair specimen of humanity. From early life he has labored as a farmer, till he was persuaded to follow the more lucrative, but less laborious business of travelling for gain. Neither of his brothers or sisters were remarkable for height. His father measures 5 feet 8 inches, and his mother 5 feet 9. The whole course of his life, so far as regards exercise and diet, was in all respects like the rest of the family to which he belongs. In the course of his peregrinations in different countries, he says he has seen two men taller than himself. We imagine Mr. Porter, the Kentucky giant, who was on exhibition in Boston, last winter, was one of them. Our impression is that he was not far from 7½ feet high!

In connection with this singular group of the extremes of mankind, we noticed an Albino, whose milk-white hair and tremulous eye-balls—the pupils of which, under certain conditions of light, sparkled like red gems—were no less objects of intense interest.

However much these kinds of sights are the legitimate favorites of the vulgar public, they are especially deserving of the marked attention of the scientific; they are nature's specimens, which are always rare, though her cabinet is extensive.

Dr. Chapin's Uterine Supporter and Lever Truss.—A gentleman who appears to be familiar with the value of these instruments, has left specimens for inspection or trial—and whenever an opportunity presents, we shall not forget to use them. So many devices for aiding the lame, the halt, and the blind, are continually crowded upon the notice of the profession, that it is quite impossible to appreciate the merits of all, at sight. We are necessarily obliged to rely very much upon the judgment and sound discrimination of others in these affairs—and when convinced of the soundness of an opinion, based on the actual experience of a discreet practitioner, we are disposed to make every honest exertion to bring them before the medical public.

John R. Chapin, M.D., of New York, the inventor of the apparatus of which we are speaking, certainly discovers himself to be a man of mechanical ingenuity: the workmanship, too, is faultless—and upon the presumption that those medical gentlemen who have given their names, are fully satisfied of the utility and importance of Dr. Chapin's invention, we urge it upon our friends to begin at once with them—that it may be ascertained whether the relief they afford is imaginary, or really of a permanent character.

Becks' Medical Jurisprudence.—The last number of the British and Foreign Medical Review contains the following favorable notice of the work on Medical Jurisprudence by two of our countrymen.—"This work has been so long before the profession, and has justly acquired so high a character, in Europe as well as in America, that it may seem superfluous to notice it. We are, however, desirous of calling the attention of our younger readers to the best and most complete treatise which is anywhere to be found on this important department of medical science; and we are at the same time glad of the opportunity of offering our tribute of respect to the learned and estimable physicians who are its authors."

Mixtures.—No. 11. R. Mist. ammoniaci, ℥ivss.; vini antim. potassio-tartratis, ʒiv.; tinct. camphor. comp., ℥ss.; syrupi tolutani, ℥i. M. Cochleare unum pro re nata.

No. 12. R. Decoct polygalæ, ʒviij.; tinct. camphor. comp., ℥i.; syrupi zingib., ℥ss.; mucil., ℥i. M.

Married,—In Norwich, Ct., Edward Strong, M.D., of Northampton, Mass., to Miss Lucretia W. Mitchell.—At North Cannan, Ct., Sidney Stillman, M.D., of Honesdale, Penn., to Miss Sophia R. Isham, of the former place.—At Simsbury, Ct., Joseph Palmer, M.D., of Ashford, to Miss Fidelia S. Barber.

Died,—At Billerica, Mass., Dr. Thaddeus Brown, 37.—In Boston, Dr. Jacob Gates, 65.

REGISTER OF THE WEATHER,

Kept at the State Lunatic Hospital, Worcester, Ms. Lat. 42° 15′ 49″. Elevation 483 ft.

1839. Septemb.		THERM. Sun r.	THERM. 2, P.M.	THERM. Sun s.	BAROMETER. Sun r.	BAROMETER. 2, P.M.	BAROMETER. Sun s.	Wind, 2, P.M.	Weather, 2, P.M.	REGIS. THER. H'st	REGIS. THER. L'st	Remarks.
1	Sun.	44	70	66	29.64	29.73	29.71	N W	Fair	43	68	
2	Mon.	52	76	71	29.70	29.74	29.72	N W	Fair	48	74	Aurora borealis.
3	Tues.	54	79	72	29.70	29.71	29.70	S W	Fair	53	77	Brilliant aurora borealis, extending over the whole heavens, exhibiting one of those splendid celestial phenomena that have attracted so much attention in modern times. Few have been more magnificent.
4	Wed.	52	77	70	29.65	29.66	29.63	S	Fair	52	76	
5	Thur.	62	76	70	29.51	29.40	29.34	S E	Rain	60	77	
6	Frid.	58	78	74	29.33	29.24	29.24	N W	Fair	58	79	
7	Satur.	64	80	62	29.26	29.28	29.30	S W	Fair	63	81	
8	Sun.	57	61	60	29.34	28.35	29.31	N E	Cloudy	57	64	
9	Mon.	61	79	77	29.15	29.16	29.14	S W	Fair	56	80	
10	Tues.	65	76	69	29.23	29.22	29.22	N W	Fair	63	75	
11	Wed.	50	67	60	29.30	29.28	29.30	N W	Fair	48	68	
12	Thur.	46	63	58	29.38	29.40	29.41	N W	Fair	46	65	Fine season for ripening crops.
13	Frid.	48	59	56	29.40	29.38	29.44	N W	Fair	46	60	High wind, flying clouds.
14	Satur.	45	65	60	29.65	29.72	29.73	N W	Fair	43	61	Very pleasant, aurora borealis.
15	Sun	42	58	62	29.77	29.78	29.68	S W	Fair	41	70	Frost in low grounds.
16	Mon.	54	74	68	29.61	29.58	29.54	S	Fair	54	75	
17	Tues.	58	76	61	29.50	29.48	29.49	S	Fair	57	77	Dense fog. Rain in the night.
18	Wed.	61	74	70	29.30	29.28	29.26	S W	Fair	61	76	
19	Thur.	60	73	68	29.20	29.35	29.40	N W	Fair	59	76	Aurora borealis.
20	Frid.	60	72	68	29.48	29.47	29.47	N W	Fair	55	73	
21	Satur.	54	76	70	29.46	29.52	29.54	N W	Fair	53	76	
22	Sun.	52	78	72	29.46	29.34	29.22	S W	Fair	51	78	Fog. High winds.
23	Mon.	60	68	62	29.09	29.11	29.15	N W	Fair	58	78	
24	Tues.	42	66	62	29.18	29.20	29.20	S W	Fair	41	66	Shower in the evening.
25	Wed.	51	65	56	29.24	29.26	29.20	N W	Fair	49	67	Shower in the night.
26	Thur.	54	54	50	29.03	29.10	29.24	N W	Fair	51	58	
27	Frid.	38	62	60	29.41	29.30	29.23	S W	Fair	36	64	High wind. Shower in the night.
28	Satur.	42	53	49	29.36	29.47	29.48	N W	Fair	39	63	
29	Sun.	39	56	53	29.51	29.55	29.53	S W	Fair	36	58	
30	Mon.	43	53	46	29.68	29.61	29.63	N E	Cloudy	38	53	Rainy afternoon and evening.

The month of September has been one of great uniformity of temperature, extremely pleasant, having an unusual number of fair days, and yet no want of rain. There has been no frost sufficiently severe to injure the crops, or even to kill the tenderest vines. Vegetation has the verdure of June, and the forests have not begun to assume the variety which renders them so beautiful in autumn. The range of the thermometer has been from 36 to 80; barometer, from 29.03 to 29.78.

Whole number of deaths in Boston for the week ending Oct. 5, 39. Males, 22—females, 16.

Of consumption, 2—old age, 1—infantile, 3—dysentery, 3—scarlet fever, 7—teething, 2—smallpox, 1—burn, 1—scrofula, 1—dropsy on the brain, 2—throat distemper, 1—jaundice, 1—liver complaint, 1—dropsy, 1—debility, 1—typhous fever, 1—marasmus, 1—lung fever, 1—inflammation of the bowels, 2—drowned, 1—stillborn, 3.

SCHOOL FOR MEDICAL INSTRUCTION.

THE subscribers are associated for receiving pupils, and affording them every facility for obtaining a complete medical education. Their pupils will have access to the medical and surgical practice of the Massachusetts General Hospital, to the Massachusetts Eye and Ear Infirmary, and to surgical operations in private practice. Instruction will be given by examinations and lectures in the interval of the public lectures at the Medical College. Facilities will be afforded for the prosecution of practical anatomy. A room is provided with books, &c., for the use of the students.

JOHN C. WARREN,
JOHN B. S. JACKSON,
ROBERT W. HOOPER,
J. MASON WARREN.

Oct. 9—tf

MEDICAL INSTRUCTION.

THE subscribers are associated for the purpose of giving Medical Instruction. Students will be admitted to the medical and surgical departments of the Massachusetts General Hospital, may see cases in one of the Dispensary Districts, and have abundant opportunities for observing the smallpox and varioloid diseases. They will receive clinical instruction upon the cases which they witness, and during the interval of the regular lectures at the College, they will receive instruction by lectures and recitations upon the various departments of medical science. Ample opportunities will be afforded for the cultivation of practical anatomy. They have access to a large library, and are provided with a study, free of expense.

Applications may be made to either of the subscribers.

M. S. PERRY, M.D.
H. I. BOWDITCH, M.D.
J. V. C. SMITH, M.D.
H. G. WILEY, M.D.

Oct 9—eop

TREATMENT OF HERNIA.—E. W. LEACH, M.D. Office No. 134 Hanover street, Boston.

Reference.—John C. Warren, M.D.; George C. Shattuck, M.D.; John Ware, M.D.; John Jeffries, M.D.; Edward Reynolds, M.D., Boston. W. J. Walker, M.D., Charlestown.

UNIVERSITY OF THE STATE OF NEW YORK.

COLLEGE OF PHYSICIANS AND SURGEONS OF NEW YORK.

THE course of Lectures for the ensuing season will be delivered in the new and extensive college edifice in Crosby street. It will commence on the first Monday in November and continue four months.

Physiology, by - - - - - - - - John Augustine Smith, M.D.
Theory and Practice of Physic, by - - - - - - Joseph M. Smith, M.D.
Materia Medica and Medical Jurisprudence, by - - John B. Beck, M.D.
Chemistry and Botany, by - - - - - - - John Torrey, M.D.
Special and General Anatomy, by - - - - - Robert Watts, Jr., M.D.
Surgery and Surgical and Pathological Anatomy, by - Willard Parker, M.D.
Obstetrics, by - - - - - - - - - - - James R. Manley, M.D.

Fee for the whole course, $108.
New York, July 24, 1839.

J. AUGUSTINE SMITH, M.D., *President.*
NICOLL H. DERING, M.D., *Registrar.*

Jy 31—eoptO15

SURGEON'S TRUSS.—DR. M. R. FLETCHER'S PATENT.

FOR the radical cure of Hernia. This instrument was recently introduced to the medical profession, and favorably noticed in the "Boston Medical and Surgical Journal." Since that time specimens have been examined and tried by most of the surgeons in the New England States, from whom certificates have been received, expressing their confidence in its superiority over every other truss now in use. Its construction is neat, small, and the spring very light. It may be made longer or shorter, and will suit equally well Inguinal, Ventro-inguinal, or Femoral Hernia; the difference being in the form of the pad. The pad may be located at any desired spot, and the pressure increased as gradually and as much as requisite. This facility of adaptation will be of great convenience to physicians who may adjust them, as well as to the individuals who may wish to vary the pressure. I have the liberty of referring to a large number of the profession in the city and country, only a few of whom it will be expedient to mention, viz., Drs. J. C. Warren, G. Hayward, W. Ingalls, S. D. Townsend, J. Jeffries, J. V. C. Smith, G. B. Doane, W. Lewis, Boston; W. J. Walker, Charlestown; A. L. Peirson, Salem; J. C. Dalton, Lowell; D. Crosby, Professor of Anatomy and Surgery, Dartmouth College; E. Hoyt, President, and J. B. Abbott, Secretary of N. H. Medical Society; T. Haynes, Concord, N. H.; J. Roby, Professor of Anatomy and Surgery, Bowdoin College. Price from $1 50 to $4 00, according to size and finish. To physicians those of men's sizes will be sold at $2, 2 25, 2 50, 2 75, and $3 00. Those sending for them will mention right or left side, the kind of hernia, and the number of inches around the pelvis. Specimens may be seen at Metcalf's, 33 Tremont Row, and at Carter's, corner of Hanover and Portland streets, druggists. They may be obtained at No. 9 Howard street.

Arrangements have been made with Mrs. H. Williams (lecturer on anatomy to females) to wait on ladies from 9 A. M. to 1 P. M., on Mondays and Saturdays, at her residence, No. 29 Friend street.

Aug 21—

M. R. FLETCHER.

JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.

Session of 1839-40.

THE regular Lectures will commence on the first Monday of November. The following are the professors in the order of their appointment:—

1. Jacob Green, M.D., Professor of Chemistry.
2. Samuel McClellan, M.D., Professor of Midwifery, and Diseases of Women and Children.
3. Granville S. Pattison, M.D., Professor of Anatomy.
4. John Revere, M.D., Professor of the Principles and Practice of Physic.
5. Robley Dunglison, M.D., Professor of Institutes of Medicine and Medical Jurisprudence.
6. Robert M. Huston, M.D., Professor of Materia Medica and Pharmacy.
7. Joseph Pancoast, M.D., Professor of Principles and Practice of Surgery.

On and after the 1st of October the dissecting rooms will be kept open, and the Professor of Anatomy will give his personal attendance thereto. Lectures will likewise be delivered regularly during the month on various branches, and opportunities for clinical instruction will be afforded at the Philadelphia Hospital under the Professor of Institutes of Medicine; and at the dispensary of the college under the Professors of Physic and Surgery.

Fee for each professor for the whole course, $15. Graduation fee, $30.

Aug 7—tN1

JOHN REVERE, M.D., *Dean of the Faculty.*

BROWN'S PATENT SELF-INJECTING APPARATUS.

THE undersigned respectfully calls the attention of medical practitioners to a newly invented instrument, which is for sale at his store, No. 481 Washington street, corner of Elliot street. If physicians would examine the principles of its construction, they would appreciate its usefulness, and would probably be induced to recommend it very generally in their practice. Physicians, druggists, and the inhabitants of Boston, are particularly invited to look into the superiority of this article over the inventor's former instrument, as it now has the advantage of Goodyear's new India Rubber, which is allowed by all to be an entirely different article from that formerly manufactured.

Feb. 6—eoply

WILLIAM BROWN.

NEW LEECH ESTABLISHMENT.

THE medical profession are hereby informed that the subscriber has made such arrangements that he will be able to supply them with the best Foreign Leeches, at the lowest market price. They will be safely put up in boxes, with the clay in which they were imported. Physicians may be certain that careful attention will be given to their orders.

SETH W. FOWLE,
33 Prince St. corner of Salem St. Boston.

Oct. 17—lyeop

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR., at 184 Washington St., corner of Franklin St., to whom all communications must be addressed, post paid. It is also published in Monthly Parts, with a printed cover. There are two volumes each year. J. V. C. SMITH, M.D., Editor. Price $3,00 a year in advance, $3,50 after three months, or $4,00 if not paid within the year. Two copies to the same address, for $5,00 a year, in advance. Orders from a distance must be accompanied by payment in advance or satisfactory reference. Postage the same as for a newspaper.

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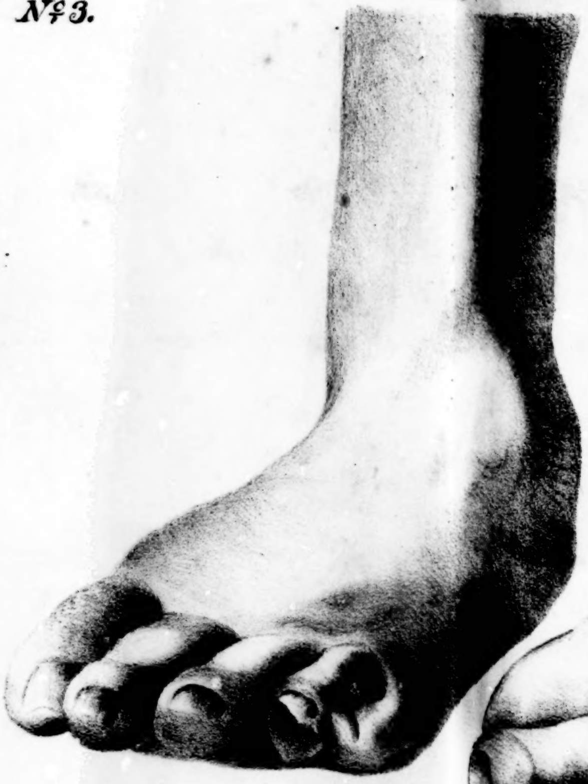

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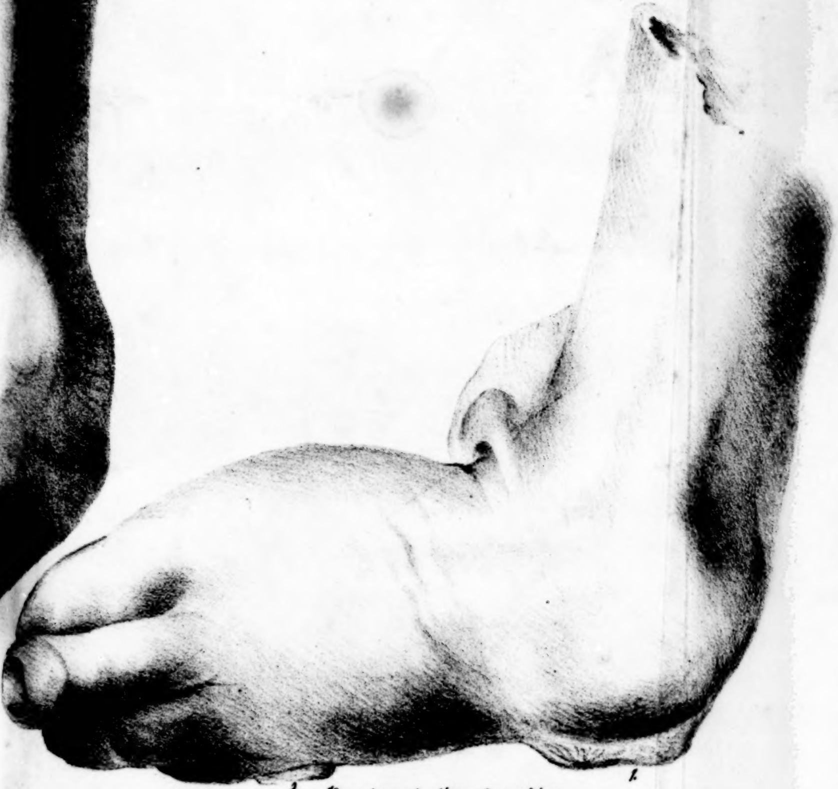

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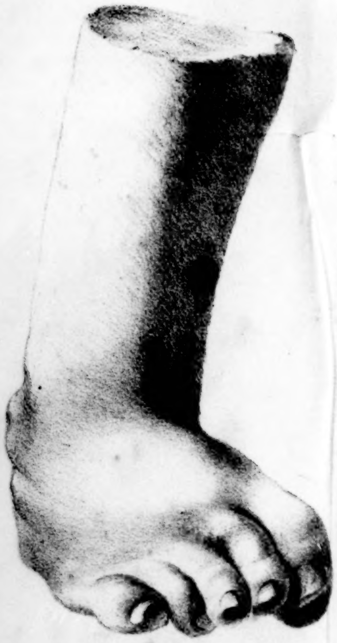

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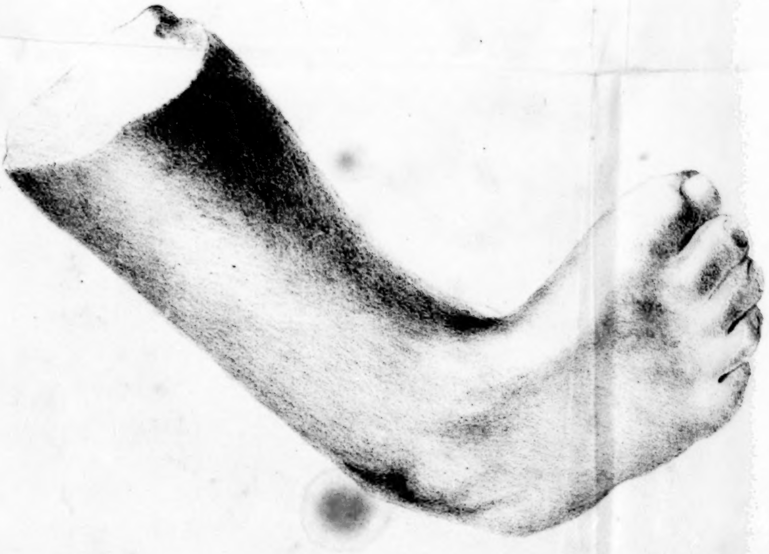

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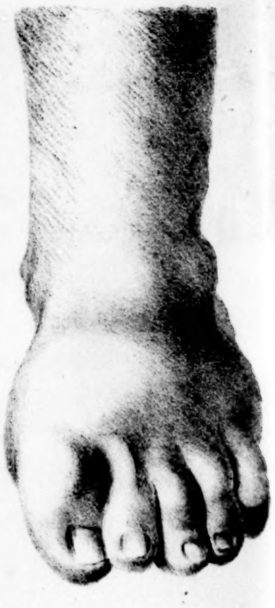

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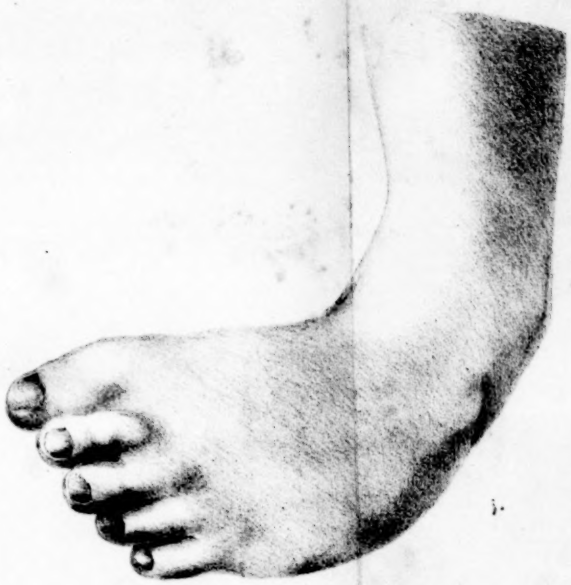

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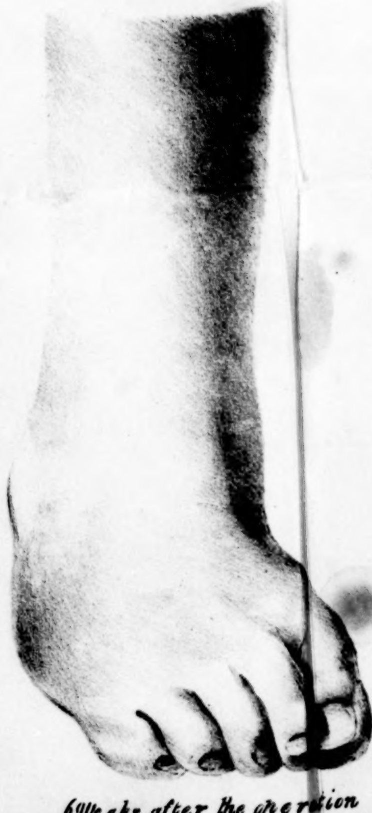

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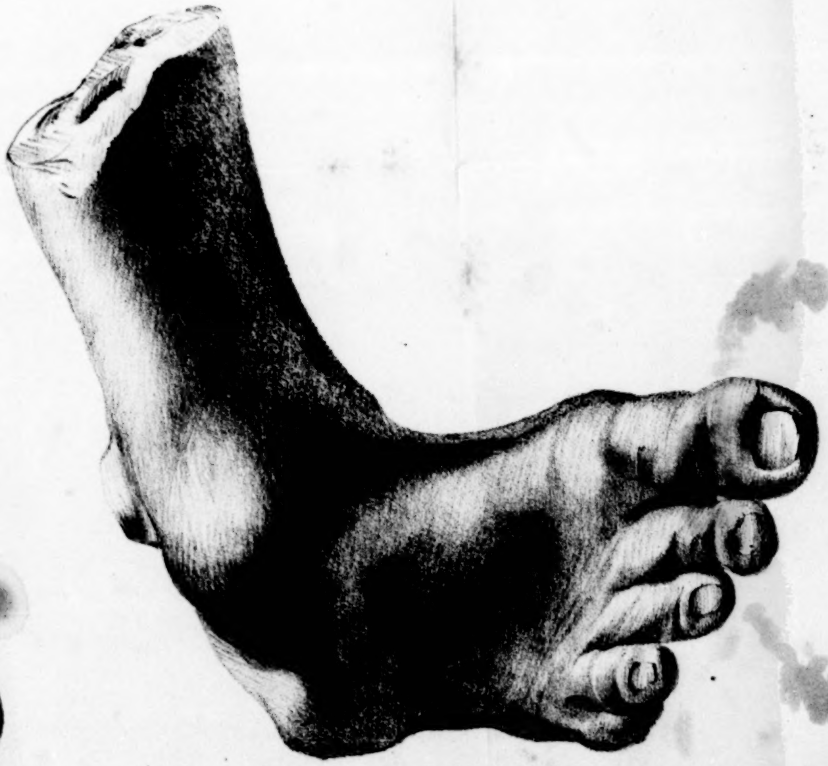

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